

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-14 (Canceled).

Claim 15 (New): A differential gear unit which divides an input driving force into a first output and second output and permits a difference between a rotational speed of the first output and a rotational speed of the second output, comprising:

a casing that defines an internal space and an opening communicated with the internal space and that is rotatable in a given rotational direction and in a rotational direction opposite to the given rotational direction, the casing including an input portion in which the driving force is input, the casing being configured such that fatigue life of the casing when the driving force is repeatedly input in the input portion in the given rotational direction is longer than fatigue life of the casing when the driving force is repeatedly input in the input portion in the rotational direction opposite to the given rotational direction, rotation in the given direction being rotation around a longitudinal axis of the differential gear casing;

a dividing mechanism that is provided in the internal space, and includes a pinion and that divides the driving force into the first output and the second output; and

a support member that is provided so as to contact the casing and so as to support the dividing mechanism and that includes a pinion shaft that supports the pinion such that the pinion can rotate on its axis and which makes the pinion revolve around a center of the casing,

wherein the fatigue life of the casing is adjusted by making a shape of the opening asymmetrical with respect to a rotational axis of the casing, wherein

the opening is in a basically elliptical shape having a round shape at each of corner portions, and the round shapes of the adjacent corner portions are different from each other, wherein

a curvature radius of the round shape of the corner portion of the opening, where a tensile stress is generated when the driving force is input in the given rotational direction, is larger than a curvature radius of the round shape of the corner portion of the opening, where a compression stress is generated when the driving force is input in the given rotational direction,

and wherein the fatigue life of the casing is adjusted by performing heat treatment on a corner portion of the opening of the casing, wherein

heat treatment is performed on the corner portion of the opening of the casing, where a tensile stress is generated when the driving force is input in the given rotational direction.

Claim 16 (New): The differential gear unit according to claim 15, wherein the casing includes a support portion that contacts the support member, and the fatigue life is measured by inputting the driving force in the input portion without rotating the support portion.

Claim 17 (New): The differential gear unit according to claim 15, wherein the casing includes an output portion that is provided at a position that is different from a position of the support portion, and the fatigue life is measured by inputting the driving force in the input portion without rotating the output portion.

Claim 18 (New): The differential gear unit according to claim 15, wherein the heat treatment includes at least one of an induction hardening and carburizing treatment.

Claim 19 (New): The differential gear unit according to claim 15, wherein

the fatigue life of the casing is adjusted by performing physical treatment on a corner portion of the opening of the casing.

Claim 20 (New): The differential gear unit according to claim 19, wherein the physical treatment is performed on the corner portion of the opening of the casing, where a tensile stress is generated when the driving force is input in the given rotational direction.

Claim 21 (New): The differential gear unit according to claim 19, wherein the physical treatment includes at least one of shot blasting and shot peening.